Draft Summary of the Engineering and Operations Work Group Meeting
Oroville Facilities Relicensing (FERC Project No. 2100)
March 1, 2001

The Department of Water Resources (DWR) hosted the kick-off meeting for the Engineering and Operations Work Group on March 1, 2001 in Oroville.

A summary of the discussion, decisions made, and action items is provided below. This summary is not intended to be a transcript, analysis of the meeting, or to indicate agreement or disagreement with any of the items summarized, except where expressly stated. The intent is to present a summary of the discussion for information purposes for interested parties who could not attend the meeting.

Introduction

Attendees were welcomed to the Engineering and Operations Work Group meeting. Ralph Torres of DWR was introduced as the Resource Area Manager for the Engineering and Operations Work Group. The meeting objectives were discussed. The Engineering and Operations Work Group meeting agenda and a list of meeting attendees and their affiliations are appended to this summary as Attachments 1 and 2, respectively. Flip chart notes are included as Attachment 3.

Ground Rules

The Facilitator discussed a set of Ground Rules for Engineering and Operations Work Group participants and the Facilitator. The Ground Rules were presented as a collection of expected actions and behavior that have worked well in other relicensing processes. The Ground Rules could change to meet the needs of the Engineering and Operations Work Group contingent upon agreement from participants.

The role of the Facilitator in the relicensing process was described; the Facilitator is a neutral entity and acts as an advocate for the relicensing process, not a particular outcome. As a neutral party the Facilitator's job is to work with Engineering and Operations Work Group participants to develop a roadmap and guide the relicensing process to achieve the goals and objectives of the Engineering and Operations Work Group. After some discussion, the participants expressed general agreement with the Ground Rules. The Ground Rules for participants and the Facilitator are appended to this summary as Attachment 4.

Roles and Responsibilities in FERC Relicensing

The Facilitator discussed the three-tiered Group Structure proposed for the Oroville Facilities relicensing process; the three tiers are the Plenary Group, Work Groups, and Task Forces. Each tier of the Group Structure was defined with special emphasis and discussion on the roles and responsibilities of the Work Group. The Work Group tier was described as a resource specific group that provides information and recommendations to the Plenary Group. The Facilitator also described a Task Force as a collection of participants organized to research and resolve specific issues. The Facilitator described the other Work Groups and Task Forces that have been established to date.

The Facilitator stressed the time commitment Work Group participation required and that each member should be prepared to think creatively and collaboratively when developing settlement agreements for Plenary Group consideration.

Work Group Schedule

Wayne Dyok of the consulting team described a draft schedule outlining critical paths to develop issue statements and the draft Scoping Document; he also discussed schedule linkages related to Engineering and Operations Work Group meetings for the next year. Wayne reported that the Plenary Group decided to delay distribution of the draft Scoping Document from mid-May to early

July, thereby allowing Work Groups more time to develop issue statements for inclusion in the draft Scoping Document. A revised schedule reflecting Plenary Group changes will be distributed to the Engineering and Operations Work Group at its next meeting.

Wayne described the Engineering and Operations Work Group's role in developing issue statements indicating that it would take approximately four to six meetings to prepare the final Scoping Document. He added that two other Work Groups have been meeting on a monthly basis and the Engineering and Operations Work Group may wish to meet more frequently to complete the issue statements for the Scoping Document.

Presentations – DWR Organization
Ralph Torres provided the Work Group with an overview of the organizational structure of DWR including its relationship to other State departments and its internal operational structure. He reviewed the organizational structure of DWR's relicensing team emphasizing that the team structure would be reviewed and refined as required during the relicensing process. DWR's organizational chart is appended to this summary as Attachment 5.

Oroville Facilities
Tom Glover of DWR provided the Engineering and Operations Work Group with a brief overview of the Oroville Facilities. His overview included statistical information about the Oroville Facilities' structures and the amount of water and energy developed by the project. A detailed description of the Oroville Facilities can be found in Section 2.0 of the Initial Information Package (IIP).

- The Work Group wanted to know about the possibility of adding to the Oroville Facilities' power production capabilities. Tom replied that several options were under consideration.

Oroville Operations
John Leahigh of DWR provided the Engineering and Operations Work Group with an overview of the Oroville Facilities' operations. A detailed description of project operations can be found in Section 3.0 of the IIP.

John explained that Lake Oroville is a key component of the State Water Project (SWP) and was built primarily for water supply and flood control purposes. Other benefits of Lake Oroville include recreation, environmental, and power generation. The SWP captures and stores water during the winter and spring in the north when and where it is plentiful and transports it to the south in the summer. John described the control and release of water from the SWP in response to flood control, environmental regulations, power generation, and water supply criteria. He explained how winter and spring rain and snowmelt provide water to the lake and why the current water level is so low. He explained how water is moved through the system (often more than once) to generate power. He also described factors that may impact reservoir levels in the future such as increased demand on SWP water, changes in diversions to the Feather River Service Area, environmental needs, and changes in flood control protocols. He added that DWR is investigating options to control releases using real-time watershed monitoring.

John emphasized that releases from the Oroville Facilities in response to Bay-Delta environmental considerations are part of a coordinated effort: Water that flows through the Delta is released from Oroville, Folsom and Shasta dams. He also explained that water released from Oroville is stored in other SWP facilities (banked) to meet dry year and emergency demands.

- In response to concerns expressed by several Work Group participants, Ken Kules of the Metropolitan Water District volunteered to provide an update on the status of MWD's Diamond Valley Reservoir and its relationship to the Oroville Facilities and the SWP. He explained that the Diamond Valley Reservoir's main source of water is the Colorado River; Ken explained that only 25 percent of the water used to fill Diamond Valley Reservoir was delivered from the SWP.

He added that the amount of water transported from the SWP to fill Diamond Valley Reservoir was well within MWD's contractual allocation. Ken described the facility as a direct-to-consumer reservoir with little or no planned recreational development. MWD will use Diamond Valley Reservoir primarily as an emergency water source and to replenish its groundwater resources. Ken explained that Diamond Valley Reservoir will be used to improve the reliability of water resources available to MWD.

- The Work Group discussed increased demand for SWP water to mitigate environmental problems in the Bay Delta and Sacramento River and how these efforts could be made part of the relicensing process. They also discussed sediment accumulation in Lake Oroville and whether sediment could be removed to increase the capacity of the lake.

Development of Issue Statements
The Engineering and Operations Work Group is tasked with developing a series of issue statements for inclusion in the Scoping Document. The Scoping Document, required by FERC and NEPA, identifies issues associated with relicensing the Oroville Facilities and guides the development of studies necessary to address all pertinent issues.

The Facilitator and Wayne Dyok lead Engineering and Operations Work Group participants in a discussion regarding the development of issue statements. The Work Group was provided with a sample issue statement focusing on environmental issues. Once issue statements are crafted for inclusion in the Scoping Document, Engineering and Operations Work Group participants will prepare an issue sheet that will include identification of goals, objectives, information available and additional study needs relative to that issue. The sample issue statement is appended to this summary as Attachment 6.

The group discussed the development of issue statements recognizing that issue statements will drive the studies conducted and must therefore accurately reflect the Work Group's desires.

DWR provided the Work Group with issue statements identified during earlier Plenary, Work Group and Public meetings. The statements have not been edited, but are grouped into categories emphasizing geography and technical focus. The Work Group reviewed the list, provided clarification on specific statements, and developed additional issues pertinent to Engineering and Operations. A complete list of comments on issue statements can be found as part of the flip chart notes in Attachment 3.

Site Tour
Approximately twenty Engineering and Operations Work Group participants agreed to attend a half-day tour of the Oroville Facilities on Wednesday, April 4, 2001 from 12:00 p.m. to 4:00 p.m. DWR will arrange to have two tour guides; each guide will lead a group of ten Work Group participants through the site tour.

Next Meeting
The Work Group agreed to meet on:

Date: Thursday, April 5, 2001
Time: 9:30 a.m. to 3:00 p.m.
Location: DWR Oroville Field Division

Agreements Made
1. The Work Group agreed to follow the Ground Rules for participants and the Facilitator as presented.
2. The Work Group agreed to review draft issue statements developed by the consulting team at their next meeting.

3. Twenty Work Group participants agreed to attend a site tour on April 4, 2001 from 12:00 p.m. to 4:00 p.m.
4. The Work Group agreed to meet again on April 5, 2001 from 9:30 a.m. to 3:00 p.m. at the Oroville Field Division.

Action Items

The following list of action items identified by the Engineering and Operations Work Group includes a description of the action, the participant responsible for the action, and item status.

Action Item #EO1: Explain storage operations at Lake Oroville.
Responsible: DWR staff
Due Date: April 5, 2001

Action Item #EO2: Explanation of hydropower generation.
Responsible: DWR staff
Due Date: April 5, 2001

Action Item #EO3: Provide Work Group with Master Issues list.
Responsible: Consulting Team
Due Date: April 5, 2001

Action Item #EO4: Real-time facility operations modeling demonstration.
Responsible: DWR Staff & Nan Nalder of ACRES
Due Date: April 5, 2001

Action Item #EO5: Provide Work Group with updated Oroville Storage Curves.
Responsible: DWR Staff
Due Date: April 5, 2001

Action Item #EO6: Determine ownership of power lines within the project boundary.
Responsible: DWR Staff
Due Date: April 5, 2001

Action Item #EO7: Provide facilities tour for Engineering and Operations Work Group participants on April 4, 2001 from 12:00 p.m. to 4:00 p.m.
Responsible: DWR Staff
Due Date: April 4, 2001

Engineering and Operations Work Group Meeting Agenda
Oroville Facilities Relicensing (FERC Project No. 2100)
March 1, 2001

Agenda

Desired Outcomes

- *Acceptance of Ground Rules*
- *Commitment to and Understanding Roles and Expectations*
- *Concurrence with Work Group Schedule*
- *Identification of Operations Issues*

1. **Welcome, Opening Remarks, Introductions**
2. **Ground Rules**
3. **Work Group Roles and Expectations**
4. **Work Group Schedule**
5. **Presentations**
   - **DWR Organization**
   - **Oroville Facilities**
   - **Operations**
6. **Issues and Interests**
   - **Development of Issues List**
7. **Action Items and Next Steps**

Engineering and Operations Work Group Meeting Attendees
Oroville Facilities Relicensing (FERC Project No. 2100)

Bill Harper	Lime Saddle Marina
Bill Lewis	Yuba City
Craig T. Jones	State Water Contractors
D.C. Jones	Resident
Dave Ferguson	Department of Water Resources
David Whitewolf	Cherokee Tribal Council/NANRC111
Don Marquez	Kern County Water Agency
Ed Craddock	Butte County
Floyd Higgens	Oroville Model Airplane Club
Jerry Antonetti	Resident
Jerry Boles	Department of Water Resources
John Lance	Department of Water Resources
John Leahigh	Department of Water Resources
John Peconom	Kleinschmidt
Kelli Thacker	Lime Saddle Marina
Ken Kules	Metropolitan Water District of Southern California
Ken Solari	Dingerville
Laurine White	U.S. Army Corps of Engineers
Lori Brown	Department of Water Resources
M.D. Short	Experimental Aircraft Association
Marry Keller	Sutter County
Matt Colwell	Western Canal Water District
Mike Glaze	Oroville Wyandotte
Mike Vrooman	Resident on Feather River
Nan Nalder	Acres International
Nicole Darby	Department of Water Resources
Rashid Ahmad	Department of Water Resources
Ray Gannett	Bidwell Marina
Ralph Torres	Department of Water Resources
Rick Ramirez	Department of Water Resources
Ron Corso	Department of Water Resources
Ron Davis	Resident
Ron Turner	Oroville Foundation of Flight
Stuart Edell	Butte County Public Works
Ted Alvarez	Department of Water Resources
Terry Erlewine	State Water Contractors
Tom Glover	Department of Water Resources, Oroville Field Division
Ward Tabor	Department of Water Resources
Wayne Dyok	Harza/EDAW

Attachment 3

Notes from Flip Charts
Oroville Facilities Relicensing (FERC Project No. 2100)

The following list was recorded on flip charts during the Engineering and Operations Work Group Meeting. The flip chart listing is not intended to be a transcript or analysis of the meeting or to indicate agreement or disagreement with the items listed; the intent is to provide a summary for informational purposes for interested parties who could not attend the meeting.

Issue Statements

- Consider adding additional generating capabilities (some existing infrastructure)
- Intake on North side of dam - afterbay outlet motoring to provide spinning reserve
- Use real-time hydraulic projections, inflow/outflow rather than yearly projections
- PLC upgrades?
- Coordination with releases from other water storage facilities? - for fisheries protection CVP facilities preventing straying of salmon and steelhead
- Coordination and evaluation of DF & G, USFWS and other regulatory agencies release requirements to better fit with reality. High agency level decision
- Potential to use support system models to evaluate different flow regimes with historic and real-time information
- Why is there no requirement to maintain minimum emergency storage at Lake Oroville? (evaluate needs related to other resources)
- Any plan to address increasing siltation in lake?
- Ramping rates effects on downstream facilities
- Coordinate releases with other water storage facilities for flood release
- Utilize current watershed hydrologic data from planning (coordinate with COE data gathering)
- Operational constraints as they relate to other resources
- Potential physical changes to facility to increase storage and generation. Impacts to existing and potential facilities
- Evaluate temperature requirements and potential Eng. (?) operational modifications
- Inequity of power pricing structure
- Update flood operation manual
- What are 50-year projections for water/power demands and plans to meet those needs and impacts of meeting demands? (context of existing full allocations)
- Early warning system for downstream releases
- Sale of existing water allotments to downstream users
- Outflow impacts to downstream flood risk (levee stability) COE?
- Stability of Oroville levee system through low flow section and effects of high flow

Action Items

- Updated Oroville storage curve (DWR) show survey information
- Explain carry-over philosophy of Department of Water Resources
- Power generation and relationship to retail users (explanation)
- Provide issue list
- Modeling demo (Nan & Department of Water Resources)
- Check power line ownership and if part of project

Other Notes

- http://orovillerelicensing@water.ca.gov
- NEPA = National Environmental Policy Act
- Rtorres@water.ca.gov
- Maximize water supply and power generation while maintaining system flexibility and reliability
- Upgrades to existing units to maximize power (currently being undertaken)

Ground Rules
Oroville Facilities Relicensing (FERC Project No. 2100)

Ground Rules For Participants

- Actively participate
- Respect others
- Be brief and prepared
- One person speak at a time
- Oroville Facilities relicensing focus
- Listen to each other
- Leave ‘baggage’ at the door
- Communicate interests, not positions
- Help involve all
- Seek solutions for all
- No ‘gunny sacking’

Ground Rules For Facilitator

- Help group accomplish objectives
- Help guide discussion
- Enforce participant ground rules
- Help involve all
- Ask ‘why’ to clarify
- Manage time
- Track actions, next steps, deadline